

CLAIMS

What is claimed is:

1. A spread spectrum communication system comprising:  
  
means for producing a reference signal;  
  
means for producing a message signal having message data;  
  
means for combining the reference signal and the message signal as a combined signal;  
  
means for transmitting the combined signal as a combined spread spectrum signal;  
  
means for receiving the combined spread spectrum signal;  
  
means for detecting the reference signal within the received combined spread spectrum signal; and  
  
means for recovering the message data using the detected reference signal.
2. The system of claim 1 further comprising:  
  
means for recovering a carrier signal from the combined spread spectrum signal using the reference signal; and  
  
wherein the message data recovering means uses the recovered carrier signal to recover the message data.
3. The system of claim 1 wherein the combined spread spectrum signal is in a code division multiple access format.

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4. The system of claim 1 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

5. A method for use in a spread spectrum communication system, the method comprising:

producing a reference signal;

producing a message signal having message data;

combining the reference signal and the message signal as a combined signal;

transmitting the combined signal as a combined spread spectrum signal;

receiving the combined spread spectrum signal;

detecting the reference signal within the received combined spread spectrum signal;

and

recovering the message data using the detected reference signal.

6. The method of claim 5 further comprising:

recovering a carrier signal from the combined spread spectrum signal; and

wherein the step of recovering the message data uses the recovered carrier signal to recover the message data.

7. The method of claim 5 wherein the combined spread spectrum signal is in a code division multiple access format.

8. The method of claim 5 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

9. A spread spectrum communication system comprising:

- means for producing a reference signal;
- means for producing a message signal having message data;
- means for combining the reference signal and the message signal as a combined signal;
- means for transmitting the combined signal as a combined spread spectrum signal;
- means for receiving a carrier signal of the combined signal using the reference signal;

and

- means for recovering the message data using the recovered carrier signal.

10. The system of claim 9 wherein the combined spread spectrum signal is in a code division multiple access format.

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11. The system of claim 9 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

12. A method for use in a spread spectrum communication system, the method comprising:

producing a reference signal;

producing a message signal having message data;

combining the reference signal and the message signal as a combined signal;

transmitting the combined signal as a combined spread spectrum signal;

receiving the combined spread spectrum signal;

recovering a carrier signal of the combined spread spectrum signal using the reference signal; and

recovering the message data using the recovered carrier signal.

13. The method of claim 12 wherein the combined spread spectrum signal is in a code division multiple access format.

14. The method of claim 12 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.